Table 1-1 Mitigation Matrix			
#	**Mitigation Measure**	**Responsibility**	**Timing**
Sustainable Design and Aesthetics			
1	The project will avoid or minimize impacts to natural, cultural, and social resources. The project will be designed to work in harmony with the surroundings, particularly the cultural landscape of the Yosemite Valley. The project will reduce, minimize, or eliminate air and water nonpoint-source pollution. The project will be sustainable whenever practicable, by recycling and reusing materials, by minimizing materials, and by minimizing energy consumption during project construction. The project will utilize building materials that represent natural tones and blend in with the surrounding wooded environment.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction ▪ Post Construction
Construction Mitigation Measures			
2	Preconstruction briefings will be required to educate construction crews on the measures required to protect natural and cultural resources.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
3	Construction area boundaries, including staging areas, will be clearly marked to ensure that construction activities do not affect resources outside of the construction areas. All construction activity and storage of construction materials will occur within these marked areas. Construction and staging areas will be confined to the smallest area necessary.	▪ Construction Contractor	▪ During Construction
Construction Mitigation Measures (cont.)			
4	Natural resources will be protected through biological monitoring, erosion and sediment control, use of fencing or other means to protect sensitive resources adjacent to construction, removal of all food-related items or rubbish to bear-proof containers, topsoil salvage, and revegetation. Fencing will be used to mark the limits of allowed construction disturbance and to mark specific high-value vegetation to be salvaged or preserved. Food shall be stored in accordance with park regulations.	▪ Yosemite National Park ▪ Construction Contractor	▪ During Construction
5	Cultural resources will be protected by minimizing the areas to be disturbed, using fencing to protect sensitive resources adjacent to construction areas, and performing construction monitoring in appropriate areas.	▪ Construction Contractor	▪ During Construction
6	The requirements of the 1999 Programmatic Agreement between the National Park Service, the State Historic Preservation Officer, and the Advisory Council on Historic Preservation will be implemented for the resolution of adverse effects associated with planning construction, operations, and maintenance activities within Yosemite National Park (i.e., review of project, design, avoidance of sensitive cultural resource areas, monitoring of project activities as appropriate, ongoing tribal consultation).	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction ▪ Post Construction

Table 1-1 Mitigation Matrix			
#	**Mitigation Measure**	**Responsibility**	**Timing**
7	Compliance monitoring will be implemented to ensure the project remains within the parameters of the National Environmental Policy Act and National Historic Preservation Act compliance documents, U.S. Army Corps of Engineers Section 404 permits, and other permits and regulations. Compliance monitoring will ensure adherence to mitigation measures and will include reporting protocols.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction ▪ Post Construction
8	Water quality will be protected through the use of silt fences, sedimentation basins, and other control measures to reduce erosion, surface scouring, and discharge to water bodies. Excavated material will be stored in upland areas and stabilized to prevent discharge into water bodies or wetlands.	▪ Construction Contractor	▪ Preconstruction ▪ During Construction
9	Wetland areas will be delineated and marked. Adjacent or nearby wetland areas not in the construction area will be fenced to reduce potential impacts from construction activities.	▪ Construction Contractor	▪ Preconstruction
10	A noxious weed abatement program will be implemented. Construction equipment will be cleaned to ensure that it arrives on site free of mud and seed-bearing material. Equipment inspections will be conducted at the El Portal maintenance Facility to verify compliance with this condition. Seeds used in revegetation and any imported fill material are required to be free of exotic and noxious weed species. Verification of compliance with this requirement will be accomplished as directed by the Contracting Officer in accordance with Division 1 Specifications. This requirement is not intended to apply to fill to be placed 12 inches or more below grade or beneath an impermeable surface. Areas of noxious weeds will be identified and treated prior to construction. Areas treated to remove noxious weeds will be revegetated with appropriate native species.	▪ Construction Contractor	▪ During Construction
Construction Mitigation Measures (cont.)			
11	A dust abatement program will be implemented during construction. Clearing of vegetation will be minimized to the greatest extent possible. Water will be applied to reduce dust during construction; trucks hauling soil will be required to cover the soils during transport; and disturbed areas will be revegetated with native species after construction. Excavated soils will be stockpiled and covered.	▪ Construction Contractor	▪ During Construction
12	Construction noise will be minimized through the use of best-available noise control techniques wherever feasible. Standard noise abatement measures could include the following elements: a schedule that minimizes impacts to adjacent noise-sensitive uses, use of the best-available noise control techniques wherever feasible, use of hydraulically or electrically powered impact tools when feasible, and location of stationary noise sources as far from sensitive uses as possible.	▪ Construction Contractor	▪ During Construction

Table 1-1 Mitigation Matrix			
#	**Mitigation Measure**	**Responsibility**	**Timing**
13	An Oil and Hazardous Substances Spill Prevention, Control, and Countermeasures Plan will be implemented. The program will emphasize proper materials storage and handling procedures, and will outline measures intended to prevent pollution associated with the spillage of fuels, lubricants, coolants, and other potentially hazardous materials. This plan will address spill containment, cleanup, and reporting procedures; and will limit refueling and other hazardous activities to designated upland areas. Signs prohibiting refueling will be posted in sensitive areas. Equipment will be inspected prior to use each day to ensure that hydraulic hoses are tight and in good condition.	▪ Construction Contractor	▪ During Construction
14	When applicable, a traffic control plan will be implemented to ensure that safe and efficient traffic and pedestrian flow is maintained during construction.	▪ Construction Contractor	▪ During Construction
15	Signage will be provided at the entrance kiosks, along the roadways, and at critical intersections noting where construction activities are taking place.	▪ Yosemite National Park	▪ During Construction
16	A visitor communication and protection plan will be developed to ensure that visitors are safely and efficiently routed around construction in the project area. This plan will include means for communicating construction and closure schedules to the public, adequate barriers to keep visitors clear of active construction areas, and clear signage to direct visitors to open park destinations during construction. Interpretation for visitors of the activities, the value and effects of ongoing construction projects shall be included.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
17	A revegetation plan will be developed to ensure that salvage vegetation is used where possible and that native species are used. Monitoring will occur during the revegetation period to ensure the success of the revegetation plan.	▪ Revegetation Contractor	▪ During Construction ▪ Post Construction
18	All tools, equipment, barricades, signs, surplus materials, and rubbish will be removed from the project area upon project completion and revegetation of disturbed areas. The National Park Service project manager will make inspections to ensure that impacts remain within the parameters of the project and do not escalate beyond the scope of the environmental assessment, as well as to ensure that the project conforms to the U.S. Army Corps of Engineers Section 404 permits. The National Park Service project manager will assure that mitigation measures are followed.	▪ Construction Contractor	▪ During Construction
Construction Mitigation Measures (cont.)			
19	The National Park Service project manager will approve the construction schedule and working hours for individual projects. Construction activities will occur only during standard daylight working hours, and shall be planned to avoid impacting highly used areas of Curry Village during peak visitor seasons.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
20	Unnecessary emissions will be avoided (e.g., engines of trucks and vehicles in loading and unloading areas would be turned off when not in use).	▪ Construction Contractor	▪ During Construction
21	Disturbed or developed areas will be used for staging whenever possible. Staging areas for individual projects will be identified during final design and will require approval by the National Park Service project manager.	▪ Yosemite National Park	▪ During Construction

Table 1-1 Mitigation Matrix			
#	**Mitigation Measure**	**Responsibility**	**Timing**
22	Final construction planning and scheduling will address the level of activity and required detour of visitor access to reduce the creation of conflicts associated with construction in close proximity to areas of high levels of visitor use, and will reduce the duration of impact in any one area by avoiding schedules that require extended continuous construction periods or sequential major construction activities that include major construction in one local use area over two successive peak visitor use periods. This will be accomplished by coordination of project funding and construction planning for all projects to be developed to reduce cumulative construction impacts, as well as reducing the effect of multiple elements of the same project, such as the Curry Village and East Yosemite Valley Campground Improvements Project. Where appropriate, construction activities that are likely to have a major effect on nearby visitor uses will be scheduled in the off-season to allow the closure of the adjacent use areas to reduce potential impacts while still accommodating the level of total visitor use demand expected during these periods.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
23	An emergency notification program will be established. Standard measures include notification of utilities and emergency response units prior to construction activities. Locations of existing utilities will be identified prior to construction activity to prevent damage to utilities, particularly the water supply lines that pass through the work limits. The contractor will call Underground Services Alert and National Park Service maintenance staff 72 hours prior to any ground disturbance. Construction will not proceed until the process of locating existing utilities is completed.	▪ Construction Contractor	▪ Preconstruction ▪ During Construction
24	Damage to natural surroundings in and around the work limits will be avoided. Temporary barriers to protect existing trees, plants, and root zone will be provided, if necessary. Trees and other vegetation will not be removed, injured, or destroyed without prior written approval. Ropes, cables, or fencing will not be fastened to trees. All existing resource protection fencing (post and rope) will be left in place and protected from heavy equipment.	▪ Construction Contractor	▪ Preconstruction ▪ During Construction
Geologic Hazards			
25	Map earthquake-triggered and other rockfall hazard zones on plans to show limits of the following: (1) talus zone; (2) rockfall zone; and (3) rockfall avalanche zone. Incorporate latest study of rockfall potential in the demarcation of the talus and rockfall hazard zones. This information will be addressed in facility siting and design.	▪ Design Contractor	▪ Preconstruction
Geologic Hazards			
26	Perform site-specific geologic and geotechnical analyses and investigations, including field exploration, as a part of final site design, to verify and modify, if necessary, the talus line and/or the rockfall zone lines, in order to determine where new facilities may be located.	▪ Design Contractor	▪ Preconstruction
27	Perform site-specific geologic investigation as a part of final site design in areas adjacent to rockfall zones where increased public usage would occur.	▪ Design Contractor	▪ Preconstruction
Soils			

Table 1-1
Mitigation Matrix

#	Mitigation Measure	Responsibility	Timing
28	Perform site-specific geologic and geotechnical investigations of proposed buildings, facilities, and infrastructure requiring foundation design criteria to assess local liquefaction and cyclic densification potential, surficial expansive soil, and strength of soil. Document consideration of these issues in final design and address as appropriate in construction documents.	▪ Design Contractor	▪ Preconstruction
29	Incorporate appropriate engineering design for areas comprised of liquefiable soils, weak or expansive soils, or soils above the base of frost zone.	▪ Design Contractor	▪ Preconstruction
30	Incorporate appropriate landscape design for areas with the potential for erosion.	▪ Design Contractor	▪ Preconstruction
31	If on-site soil meets criteria for engineered fill, use soil from foundation excavations (drilled pier and/or shallow spread footing) to reduce the need to transport material off site or import material for fill. Any imported fill material is required to be free of exotic and noxious weed species. Verification of compliance with this requirement will be accomplished as directed by the Contracting Officer in accordance with Division 1 Specifications. This requirement is not intended to apply to fill to be placed 12 inches or more below grade or beneath an impermeable surface.	▪ Construction Contractor	▪ Preconstruction ▪ During Construction
32	Have foundation installation equipment available during construction to allow for excavation or drilling through the large-diameter boulders anticipated to be scattered throughout the proposed development area.	▪ Yosemite National Park	▪ During Construction
33	Use semi permeable materials on temporary access routes to allow for water infiltration through the soil column and aeration of any compacted soils at the completion of construction.	▪ Yosemite National Park	▪ During Construction
Floodplains			
34	Incorporate methods for minimizing flood damage into the design of all new structures, as contained in the National Flood Insurance Program Floodplain Management Criteria for Flood-Prone Areas (Code of Federal Regulations 44:60.3) and in accordance with any local, county, or state requirements for flood-prone areas.	▪ Yosemite National Park	▪ Preconstruction
Hydrology and Water Quality			
35	Develop and implement a stormwater pollution prevention plan to control erosion and sedimentation, both during and after construction, thereby reducing water pollution.	▪ Contractor (preconstruction and during construction) ▪ Yosemite National Park (post construction)	▪ Preconstruction ▪ During Construction ▪ Post Construction
Hydrology and Water Quality (continued)			
36	Place construction debris in refuse containers at least daily.	▪ Construction Contractor	▪ During Construction
37	Dispose of refuse at least weekly. Do not burn or bury refuse inside the park.	▪ Construction Contractor	▪ During Construction

Table 1-1
Mitigation Matrix

#	Mitigation Measure	Responsibility	Timing
38	Schedule construction activities, particularly those resulting in substantial soil disturbance, during periods of low precipitation and low groundwater, when feasible, to reduce the risk of accidental hydrocarbon leaks or spills reaching surface and/or groundwater, to reduce the potential for soil contamination, and to minimize erosion of loose materials in construction areas.	▪ Construction Contractor	▪ Preconstruction ▪ During Construction
39	Dispose of volatile wastes and oils in approved containers for removal from construction sites to avoid contamination of soils, drainages, and watercourses.	▪ Construction Contractor	▪ During Construction
40	Inspect equipment for hydraulic and oil leaks prior to use on construction sites, and implement inspection schedules to prevent contamination of soil and water.	▪ Construction Contractor	▪ During Construction
41	When using heavy equipment, keep absorbent pads, booms, and other materials on-site, so as to contain oil, hydraulic fluid, and solvents.	▪ Construction Contractor	▪ During Construction
Wetlands			
42	Site new facilities to avoid wetlands whenever practicable.	▪ Design Contractor	▪ Preconstruction ▪ During Construction
43	Use fencing to delineate wetlands within and adjacent to construction areas that would not be directly filled and mark the areas as sensitive habitat prior to the start of construction to prevent unintended trampling of wetland vegetation by construction personnel and equipment.	▪ Construction Contractor	▪ Preconstruction ▪ During Construction
44	Water pumped out of excavation areas should be released at least 100 feet from wetland areas and allowed to flow over vegetated areas to filter runoff.	▪ Yosemite National Park	▪ During Construction
45	Plant native shrubs and groundcover along the drainages to reduce sedimentation.	▪ Yosemite National Park	▪ During Construction ▪ Post Construction
46	To the extent feasible, construct bridges and install culverts when there is no water in the watercourses. Revegetate disturbed areas, as appropriate, and minimize erosion.	▪ Yosemite National Park	▪ During Construction ▪ Post Construction
47	A biologist shall review the final wetland delineation to assist the design team in avoiding impacts to wetland to the extent feasible. Any unavoidable impacts will be mitigated by replacement of the wetlands through restoration.	▪ Yosemite National Park	▪ Preconstruction ▪ Post Construction
48	Install all bridge abutments and any protective materials outside the mapped wetland or watercourse area to eliminate fill in wetland area except in areas specifically identified in these findings.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
49	Design all new culvert installations as bottomless culverts that completely span the mapped wetland area and allow the establishment of natural streambed conditions within the culvert.	▪ Design Contractor	▪ Preconstruction ▪ During Construction ▪ Post Construction
Special-Status Species			
50	A qualified biologist will be available to inspect all excavations before refilling occurs, ensuring that special-status species are passively relocated to avoid incidental take.	▪ Yosemite National Park	▪ During Construction

Table 1-1
Mitigation Matrix

#	Mitigation Measure	Responsibility	Timing
51	Birds – Trees, structures, and understory that contain unoccupied nests must be removed prior to March 1, or after the nesting season is over. If project activities occur during the breeding season, preconstruction surveys will be conducted for special-status birds within 500 feet of new development. If construction could affect an active nest, construction will be delayed until a qualified biologist determines that adults are no longer caring for young and that juvenile birds are no longer roosting at the nest. Surveys for special-status birds will likely occur prior to initiating most project activities, given the prevalence of trees and buildings that have the potential to support nesting activities.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
52	Amphibians – Work within suitable aquatic habitat will be completed between July 1 and November 1 or during low-flow conditions. A qualified biologist will survey the site two weeks prior to the onset of activities to determine if any lifestage of special-status amphibians is present. The appropriate agency would be contacted if any lifestage is found and may need to be relocated. Preconstruction surveys for special-status amphibians should be conducted within upland and wetland habitat, 500 feet from suitable aquatic breeding sites.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
53	Plants – Preconstruction surveys will be conducted for special-status plants by a qualified botanist in areas of suitable habitat within 300 feet of construction areas. If special-status species are identified in areas not directly affected by construction, those populations will be fenced and marked to protect them from trampling by construction equipment or personnel.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
54	Bats – A qualified biologist will conduct preconstruction surveys one year prior to construction, when feasible. An immediate preconstruction survey will also be conducted three days prior to construction, to determine whether affected structures or trees provide hibernacula, nursery colony, or roosting habitat. If bats are not detected during preconstruction surveys, work must be initiated within three days of the immediate preconstruction survey. If it is found that the site is used by bats, then construction will be scheduled to occur between April 15 and May 15 or from August 15 through the end of October. These dates should be adjusted for seasonal variation (i.e., late spring, early winter, etc.).	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
Vegetation			
55	Develop revegetation plans for any disturbed area, requiring the use of native species from the same gene pool. Specify soil preparation, native seed/plant mixes, and mulching for all areas disturbed by construction activities.	▪ Yosemite National Park	▪ Preconstruction ▪ Post Construction
56	Develop and implement a monitoring plan to ensure successful revegetation, maintain plantings, and replace unsuccessful plant materials.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction ▪ Post Construction
Vegetation (continued)			
57	Salvage vegetation to the extent possible for use in revegetating disturbed areas.	▪ Revegetation Contractor	▪ During Construction

Table 1-1
Mitigation Matrix

#	Mitigation Measure	Responsibility	Timing
58	Enforce construction specifications regarding soil salvage and reuse, trenching, plant protection, and finished grading.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
59	Site buildings, trails, and campsites to minimize impacts to vegetation, and avoid large trees, including Black Oaks to the extent feasible.	▪ Yosemite National Park	▪ Preconstruction
60	Select base course and fill materials for compatibility with native granitic soils to minimize the risk of introducing non-native plant seeds. Monitor areas where fill is imported from outside the park, and eradicate non-native plants. Apply standard techniques to prevent non-native plant encroachment.	▪ Construction Contractor	▪ Preconstruction ▪ During Construction
61	Develop monitoring and mitigation plans for managing non-native plants within and immediately surrounding construction and developed areas.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction ▪ Post Construction
62	Confine all construction operations to specified project work limits. Install temporary barriers to protect natural surroundings (including trees, plants, and root zones) from damage. Repair or replace damaged trees and plants.	▪ Construction Contractor	▪ During Construction ▪ Post Construction
63	Install fencing to minimize use of highly sensitive sites such as riparian and wetland habitat, and install signs as needed to direct use to more appropriate areas. Placement of fencing and signs would be developed in consultation with cultural resources and natural resources staff.	▪ Construction Contractor	▪ Preconstruction ▪ During Construction
64	Use native or seed-free mulch to minimize surface erosion and introduction of non-native plants.	▪ Revegetation Contractor	▪ Preconstruction ▪ During Construction
65	Comply with the *Vegetation Management Plan* (NPS 1997b), including minimization of irrigation systems, planting with native plant species appropriate to the site, or landscaping (if appropriate) with approved nonspreading, non-native plants for restoration of disturbed areas. Treatment within historic districts would be in accordance with *The Secretary's Standards for Historic Buildings* and *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (USDOI 1996).	▪ Construction Contractor ▪ Revegetation Contractor	▪ Preconstruction ▪ During Construction ▪ Post Construction
66	When approval is granted for removal of trees, measures to protect park resources may include, but are not limited to, site avoidance, the establishment of an equipment exclusion zone, directional falling of adjacent trees away from the site area, use of rubber-tired equipment only, or restrictions on piling and burning of slash on site.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction ▪ Post Construction
67	As part of final design, National Park Service will review existing root rot survey data and conduct on-site surveys so as to locate facilities in areas affected by root rot and to avoid development in areas not affected by root rot to the extent feasible.	▪ Yosemite National Park	▪ Preconstruction
Wildlife			
68	Prior to construction, evaluate habitat for species and take steps to minimize impacts on those species determined to be especially vulnerable.	▪ Yosemite National Park	▪ Preconstruction
Wildlife (continued)			
69	Limit the effects of light and noise on adjacent habitat through control of sources during construction, and through site design of facilities, to limit long-term effects of development	▪ Design Contractor ▪ Construction Contractor	▪ Preconstruction ▪ During Construction

Table 1-1 Mitigation Matrix			
#	**Mitigation Measure**	**Responsibility**	**Timing**
70	Install fencing and signs to direct visitor use away from sensitive habitats.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
71	Provide adequate education and enforcement to limit visitor activities that are destructive to wildlife and habitats.	▪ Yosemite National Park	▪ During Construction ▪ Post Construction
72	Maintain routes of escape from excavated pits and trenches for animals that might fall in. Cover post holes and other narrow pits and trenches with boards. During construction, maintain vigilance for animals caught in excavations and take appropriate actions to free them.	▪ Construction Contractor	▪ During Construction
73	Provide procedures to limit the chance of pollution spills, both during construction and during subsequent use of completed facilities. This is especially important where activities are near aquatic or wetland habitats.	▪ Construction Contractor	▪ During Construction ▪ Post Construction
74	Remove any trees or structures containing unoccupied nests (stick nests or tree cavities) prior to March 1, or after the nesting season is over. Also remove unoccupied nests where they occur in trees that are not to be removed, but that are within areas expected to be subjected to disturbance during the breeding season.	▪ Yosemite National Park	▪ Preconstruction ▪ Post Construction
75	Should construction activities take place during the breeding season, a qualified biologist would conduct a preconstruction survey no more than one week prior to construction in March through August. If it is determined that construction, would affect an active nest or disrupt reproductive behavior, then avoidance strategies would be implemented. Construction could be delayed within 500 feet of such a nest, until a qualified biologist determines that the subject birds are no longer nesting or until any juvenile birds are no longer using the nest as their primary day and night roost. These measures should apply to all species of birds that are afforded protection from take, as defined by the federal Migratory Bird Treaty Act.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
Human/Wildlife Conflicts			
76	Take measures to reduce the potential for human/bear conflicts. Provide bear-proof garbage containers in all developed areas. Install bear-proof food lockers at all campsites and overnight parking areas. Require construction personnel to adhere to park regulations concerning food storage and refuse management.	▪ Yosemite National Park ▪ Construction Contractor	▪ Preconstruction ▪ During Construction
Air Quality			
77	Design site layout and development so as to minimize the number of vehicle trips in the project area, thereby reducing vehicle-related emissions. In addition, minimize construction-related vehicle trips through carpooling and elimination of unnecessary trips during project construction.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
78	Use best-available technology in all furnaces, boilers, engines, and other lodging- and visitor-related air pollutant sources associated with new buildings and facilities.	▪ Yosemite National Park	▪ Preconstruction
Noise			

Table 1-1 Mitigation Matrix			
#	**Mitigation Measure**	**Responsibility**	**Timing**
79	Implement standard noise abatement measures, such as developing a construction schedule that minimizes impacts to adjacent noise-sensitive uses; using best-available noise control techniques wherever feasible; using hydraulically or electrically powered impact tools when feasible; locating stationary noise sources as far from sensitive uses as possible; erecting temporary noise barriers between construction areas and lodging units, or temporarily vacating lodging units located adjacent to construction areas.	▪ Construction Contractor	▪ Preconstruction ▪ During Construction
80	Consider privacy and noise screening in the design and layout of new and relocated campsites and lodging.	▪ Yosemite National Park	▪ Preconstruction ▪
81	Apply noise-reducing technology to vehicles and equipment associated with the project and construction activities where possible.	▪ Construction Contractor	▪ During Construction
Cultural Resources			
82	Implement the 1999 Programmatic Agreement among the California State Historic Preservation Officer and the Advisory Council on Historic Preservation, developed in consultation with the culturally associated Native American tribes and the public, which stipulates processes for the treatment of historic properties, including identification, evaluation, and, if necessary, action to resolve adverse effect. Implement standard mitigation measures in Stipulations VII and VIII as appropriate; including archaeological investigations, documentation, interpretation, materials salvage, and National Register re-evaluation.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction ▪ Post Construction
83	Protect known human burials from disturbance, and prepare emergency discovery plans to deal with any unanticipated discoveries in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA).	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
84	Mitigate impacts to archeological resources through data-recovery excavations and construction monitoring, in keeping with the *Archeological Synthesis and Research Design, Yosemite National Park* (Hull and Moratto 1999) and as specified in the Programmatic Agreement.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
85	Mitigate impacts to ethnographic resources through actions developed in consultation with culturally associated American Indian tribes. Mitigation measures could include constructing during time periods when gathering does not occur, maintaining access to traditional and spiritual locations, and screening new development from traditional use areas.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction ▪ Post Construction
86	In cases where historic structures or other historic features are proposed for modification or removal, first consider options for rehabilitation and adaptive reuse or for relocation to another area of the park. Prior to any removal or modification, document the structures in accordance with the Programmatic Agreement, and salvage historic building materials for reuse within the park.	▪ Yosemite National Park	▪ Preconstruction ▪ Post Construction
87	Design all new construction within historic districts or adjacent to historic structures or sites to be compatible in terms of architectural elements, scale, massing, materials, and orientation, and to be in compliance with the *Architectural Guidelines*.	▪ Yosemite National Park	▪ Preconstruction
Cultural Resources (continued)			

Table 1-1
Mitigation Matrix

#	Mitigation Measure	Responsibility	Timing
88	Undertake all treatments to historic structures or within cultural landscapes in keeping with *The Secretary of Interior's Standards for Historic Buildings* and *The Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.*	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
Scenic Resources			
89	Develop buildings and landscaping in the project area in accordance with the *Architectural Guidelines for Yosemite Valley* and the *Landscape Guidelines for the Curry Village Historic District* (ARG 2003), so as to ensure compatibility with the existing built and natural environment. Utilize the *Vegetation Management Plan* guidelines for landscaping and yard care within and around developed areas in Yosemite Valley.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction ▪ Post Construction
90	Dispose of wood in accordance with strategies defined in the *Yosemite Valley Plan*. Whenever possible, the preferred method is decomposition on site to allow cut vegetation to cycle through the ecosystem. Fire hazard fuels must be considered in certain plant communities where fire has not been allowed.	▪ Yosemite National Park	▪ During Construction ▪ Post Construction
91	Ensure that new signage accompanying any campground design is consistent in size, shape, and format with existing signage, and is designed in conformity with the *Design Guidelines.*	▪ Yosemite National Park	▪ Preconstruction
Park Operations and Facilities			
92	Verify existing utility locations through field survey (potholing) and/or use the Underground Services Alert services prior to the start of construction	▪ Yosemite National Park	▪ Preconstruction
93	Observe California Department of Health Services standards that require: (1) a 10-foot horizontal separation between parallel sewer and water mains; (2) 1-foot vertical separation between perpendicular water and sewer line crossings; and (3) encasement of water mains in protective sleeves where a new sewer force main crosses under or over an existing sewer main.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
94	Observe guidelines specified in the International Plumbing Code, Building Officials and Code Administration National Plumbing Code, National Electric Code, and the National Fire Protection Code regarding utilities installation and/or abandonment of pipelines.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
95	Maintain and use existing utilities infrastructure and facilities, where possible, in order to minimize impacts from construction of additional facilities.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
96	Avoid trees and existing buildings and facilities that would be impacted during construction of additional utilities infrastructure and facilities, to the degree possible.	▪ Construction Contractor	▪ Preconstruction ▪ During Construction
97	Promptly reconnect utility services that are unexpectedly interrupted due to construction activities. In addition, provide advanced notification to residents, concessionaires, and others in the event that utility services will be disrupted.	▪ Construction Contractor	▪ During Construction
98	Verify the location of the South Camp campsites relative to the waste accumulation. Close any campsites found to be within the waste accumulation area until remediation has been completed	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction

Table 1-1
Mitigation Matrix

#	Mitigation Measure	Responsibility	Timing
Transportation Planning			
99	As part of the construction management plan, develop a traffic and pathways diversion and circulation plan to reduce disruption to traffic flow and to protect sensitive resources. This plan will be reviewed by park resources, operations, and visitor safety staff prior to park approval.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction
100	Define parking area boundaries to prevent damage to meadows and other sensitive resource areas. Install a fence along the creek side of the Upper Pines walk-in campground parking area.	▪ Design Contractor	▪ Preconstruction ▪ During Construction
101	Design parking areas to allow minimal resistance for flood waters, thereby minimizing impacts on the river, the road, and associated parking.	▪ Design Contractor	▪ Preconstruction ▪ During Construction
102	Integrate stormwater pollution control measures into parking lot design and construction, and maintain runoff control facilities as specified in an operational Stormwater Pollution Prevention Plan.	▪ Yosemite National Park	▪ Preconstruction
103	Provide signage that informs drivers about the removal of Southside Drive through Stoneman Meadow and directs them to the new route.	▪ Yosemite National Park	▪ During Construction
Visitor Experience			
104	Use lighting that is consistent with the Yosemite National Park lighting guidelines. In the absence of final guidelines, lighting designs will be allowed based on an acceptability review by park management to preserve night sky and provide adequate lighting for safety.	▪ Yosemite National Park	▪ Preconstruction ▪ During Construction ▪ Post Construction
105	Design interior and exterior lighting to prevent glare and reduce escaped light. Luminaire lamps would not exceed 100 watts.	▪ Design Contractor	▪ Preconstruction
106	Use more intense and uniform light to promote security where human activity is high. Use lower light levels to provide wayfinding within developed areas, as needed.	▪ Design Contractor	▪ Preconstruction ▪ Post Construction
107	Provide lights in developed areas for safety where pedestrians cross busy intersections. Provide no light outside of developed areas, except at active bus stops and public telephones.	▪ Design Contractor	▪ Preconstruction ▪ Post Construction
108	Provide appropriate signage to notify visitors of access road changes to Curry Village, campgrounds, and Happy Isles Loop Road.	▪ Yosemite National Park	▪ Preconstruction ▪ Post Construction
109	Install appropriate, effective road signage to help visitors locate the new amphitheater facilities.	▪ Yosemite National Park	▪ Post Construction
110	Post directions to and a schedule of interpretive activities for the new amphitheater at each campground, the campground check station, and the Curry Village registration building.	▪ Yosemite National Park	▪ Post Construction
111	Provide clear and effective signage to relocated swimming access areas, along with appropriate signs explaining why campsites and swimming access areas have been relocated out of the River Protection Overlay.	▪ Yosemite National Park	▪ Post Construction
112	Use appropriate new technology and fixtures to light new cabins and campground restroom and shower buildings	▪ Design Contractor	▪ Preconstruction